AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph from lines 2-11 in page 4 of the specification as follows:

According to one aspect of the present invention a method is disclosed for generating and searching an optimal likelihood decision tree (OML-DSCTree) for hidden markov model (HMM) based speech recognition. For one embodiment, speech signals are received. The received speech signals are processed to generate a plurality of phoneme clusters. The phoneme clusters (e.g., biphone or triphone clusters) are grouped into a first cluster node and a second cluster node according to their answers to phonetic context questions. A determination is made if a phoneme cluster in the first cluster node is to be moved into the second cluster node based on a likelihood increase of the phoneme cluster of the first cluster node from being in the first cluster node to being in the second cluster node.

Please amend the paragraph from lines 17-25 in page 5 of the specification as follows:

FIG. 2 is a block diagram of a speech processing system 200 according to one embodiment. The speech recognition system can be implemented, e.g., in digital processing system 100 as described in FIG. 1. Referring to FIG. 2, block diagram 200 includes an audio/speech device 204 for receiving and processing speech signals 202 and a signal processor 206 for processing speech signals 402 202 from audio/speech device 204. For one embodiment, signal processor 206 can build an OML-DCSTree as described in FIG. 4 to be stored as acoustical models 208 in a training process. For another embodiment, signal processor 206 can use acoustical models 208 (e.g., an OML-DCSTree) to recognize speech during a speech recognition process.

Please amend the paragraph from lines 26-30 in page 5 of the specification as follows:

Audio/speech device 204 is an audio and speech receiving mechanism. For example, audio/speech device 204 can be a microphone. A user can speak into audio/speech device ~~203~~ 204 in which acoustics (i.e., analog signals) are provided to audio/speech device ~~203~~ 204. Audio/speech device 204 can convert the analog signals (i.e., speech signals 202) into digital form.

Please amend the paragraph from lines 18-22 in page 7 of the specification as follows:

At operation 422, at determination is made if a certain depth is reached for the decision tree. That is, the above operation is repeated at all levels of the decision tree until a certain ~~dept~~ depth of the decision tree is reached. If a certain depth is not reached, operation 400 finds the next best node to split and continues back at operation 404. If a certain depth is reached, operation 400 ends.